

REMARKS

Status of Claims

Claims 23-38 are currently pending and under consideration.

Claim Amendments

Claim 23 has been amended to recite that the pharmaceutical composition comprises a calcium or quaternary ammonium salt of fenofibric acid. Claim 23 has also been amended to remove the phrase “wherein the fenofibric acid content comprises 5 to 60% by weight of the composition”. Claim 37 has been amended to make this claim consistent with the amendments made to claim 23. No new matter has been added as a result of this amendment.

Claim Rejections – 35 USC Section 103

Claims 23-31 and 33-37 are rejected under 35 USC Section 103(a) as being unpatentable over Boyer et al. (US Patent No. 4,800,079) in view of Kothrade et al. (US Patent No. 6,284,803). Specifically, the Examiner states that Boyer et al. teach a medicine based on fenofibrate and a method of preparing it. The Examiner refers to the definition of “fenofibrate and its derivatives” which refers to a compound having a certain formula I. The Examiner states that Boyer et al. disclose fenofibric acid when R₁ is a phenyl group, R₂ and R₃ are each hydrogen and Y is –OH. The Examiner states that Boyer et al. also teach various binders, such as methacrylic polymers, polyvinylpyrrolidone, mixtures thereof as well as cellulose derivatives and polyethylene glycols. The Examiner notes that Boyer et al. is deficient in the sense that dependent limitations in claims 24-31 and 33-37 are not explicitly stated in the composition. For curing this deficiency, the Examiner points to Kothrade et al. Specifically, the Examiner states that Kothrade et al. teach a pharmaceutical formulation (citing column 14, line 45) in a dosage form (citing column 1, line 4) that comprises fenofibrate as the active ingredient (citing column 7, line 39) in the form of a molecular dispersion (citing column 10, line 48) and a polymeric binder composed of methyl/methacrylate, acrylic acid, cellulose acetate phthalate and hydroxypropylmethylcellulose phthalate (citing column 5, lines 11-13 and 20-21) and other conventionally acceptable excipients (citing column 1, lines 44-7), such as flow regulators and silicates/silica gel (citing column 6, lines 1 and 12). The Examiner further states that the formulation is obtainable by melt extrusion (citing column 2, line 8; column 5, line 35) and that the formulation has a ratio of free carboxyl groups to esterified carboxyl groups around 1:1, based on weight percentage of methyl methacrylate to acrylic acid (citing column 2, lines 56-61) and the use of Eudragit types (citing column 4, lines 12; column 10, line 39). The Examiner further notes that the formulation comprises 0.1 to 95%, preferably from 20 to 80%, in particular 30 to 70% by weight of active substances (citing column 6, lines 61-62), with

ranges of 15-83 for the binder (citing column 2, lines 19-45), in which the enteric binder of the Eudragit type is in the preferably range of up to 75% by weight of the binder component (citing column 4, lines 65-67; column 5, lines 1 and 12) and with the range up to 100%, particularly, 0.02 – 50% of the pharmaceutically/physiologically acceptable additives (See, column 5, lines 66-67; column 6, lines 7-8). The Examiner goes on to state that the claims would have been obvious because the “design incentives or market forces provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner. All the claimed elements were known in the prior art and one skilled person in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to have yielded predictable results [sic] to one of ordinary skill in the art at the time of the invention. Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time of the invention, to combine the components of Kothrade et al. for the formulation of Boyer et al. to arrive at a fenofibric acid composition for pharmaceutical oral administration. The expected results would be an effective lipid-regulating tablet in dosage form.” In response to Applicants’ prior arguments, the Examiner states:

“Fenofibric acid is known in the art. The acid or salt form of a compound is preferable over ester form in the formulations. In this case, fenofibric acid is expected to have high solubility over its ester form and will have better adsorption properties over the fenofibrate. The claim would have been obvious because the design incentives or market forces provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time of the invention, to combine the above cited references and arrive at a fenofibric acid composition or pharmaceutical oral administration with a reasonable expectation of success. The expected result would be an effective lipid-regulating tablet in dosage form.”

Applicants respectfully traverse this rejection.

As mentioned previously herein, claim 23 has been amended to remove the phrase “fenofibric acid”. As currently amended, claim 23 refers to a pharmaceutical composition comprising: (a) a calcium or quaternary ammonium salt of fenofibric acid; and (b) at least one binder.

Applicants agree that Formula I as recited by Boyer encompasses fenofibric acid. However, as Applicants have argued several times previously, despite the fact that fenofibric acid is encompassed within Formula I, a reading of Boyer in its entirety would make it abundantly clear to one skilled in the art that Boyer’s invention relates to fenofibrate and to formulations which improve the absorption of fenofibrate in the digestive system and not to fenofibric acid or any specific salts (such as the calcium and quaternary ammonium salts) of fenofibric acid. Specifically, in column 2, lines 3-8, Boyer states, “[I]t has been observed that fenofibrate has poor solubility in aqueous liquids, thereby giving rise to non-uniform absorption in the

digestive tube, and in accordance with the present invention, **a galenical preparation has been devised which considerable improves absorption by the digestive tube** (emphasis added).

The composition (i.e., galenical preparation) taught by Boyer comprises a granule. Each granule contains an inert core, a layer of crystalline microparticles of fenofibrate and a protective layer. Boyer states in column 3, lines 15-23, that “[T]he fenofibrate layer structure is similar to that of a sponge, with pores containing microparticles of fenofibrate. The sponge is constituted by a binder which is soluble in an aqueous medium: methacrylate or polyvinylpyrrolidone. Once the binder has dissolved, the microparticles of fenofibrate are released and can prevent¹ [sic] their entire areas to the process of absorption in the intestinal aqueous medium.” The purpose of the fenofibrate layer in Boyer is to improve the solubility of the fenofibrate after ingestion. There is absolutely nothing in Boyer that discloses or suggests a pharmaceutical composition comprising a calcium or quaternary ammonium salt of fenofibric acid; and (b) at least one binder. The Examiner argues that “design incentives” or “market forces” provide a reason to use “fenofibric acid” or a salt form thereof in place of fenofibrate in Boyer. Applicants question what “design incentives” or “market forces” would motivate or suggest to one skilled in the art to use the calcium or quaternary ammonium salt of fenofibric acid in view of the teaching of Boyer, particularly in view of the fenofibrate formulation described by Boyer that has improved bioavailability. The Examiner makes this statement without providing any evidence to support his argument. Thus, Applicants submit that the Examiner is using impermissible hindsight in rejecting Applicants’ invention.

The Examiner states that Boyer contains a number of deficiencies with respect to the limitations of claims 24-31 and 33-37 which the Examiner argues are cured by Kothrade et al. Applicants respectfully submit that Kothrade et al. do not cure said deficiencies. Specifically, Applicants submit that Kothrade et al. is directed to solid dosage forms that comprise a polymeric binder and an active ingredient, wherein the polymeric binder consists of copolymerized units of (1) 15-83% w/w of at least one N-vinyl lactam; (2) 15-83% w/w of methyl methacrylate; (3) 2-70% of at least one other monomer; and (4) 9-9.9% w/w of at least one α,β -ethylenically unsaturated acid. Kothrade et al. teach in detail how to make a polymeric binder. Kothrade et al. do not disclose or suggest a calcium or quaternary ammonium salt of fenofibric acid. Thus, neither Boyer nor Kothrade et al., either individually or collectively, disclose or suggest formulating a calcium or quaternary ammonium salt of fenofibric acid into a composition. In view thereof, Applicants submit that the claimed invention is not obvious and that this rejection is now moot and should be withdrawn.

REQUEST FOR RECONSIDERATION

Reconsideration and withdrawal of all claim rejections are respectfully requested. Applicants believe that the present application is in condition for allowance. Should the Office have any questions or would like to discuss any matters in connection with the present application, the Office is invited to contact the undersigned at

Polsinelli Shughart

160 N. Clark Street
Suite 4200
Chicago, IL 60601
(312)-873-3632 (Phone)
(312)-873-2932 (Fax)
lmuellet@polsinelli.com

Date:

Direct telephone calls to:

Respectfully submitted,

/Lisa V. Mueller/

Lisa V. Mueller
Attorney for Applicant
Reg. No. 38,978

December 13, 2010

312.873.3632

¹ Applicants submit that this should read “present” instead of “prevent”.